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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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03/06/2007

Sammo Cho

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7120

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7590

02/02/2009

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EXAMINER

NGUYEN, NGA X

ART UNIT

PAPER NUMBER

3662

MAIL DATE

DELIVERY MODE

02/02/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/580,867	Applicant(s) CHO ET AL.	
	Examiner NGA X. NGUYEN	Art Unit 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rudow (5689431) in view of Tiwari (5477228).

With regard to claim 1 & 3, Rudow discloses:

- A radio frequency processing means for receiving digital broadcasting signals including multiplexed multimedia data and DGPS data and converting the received broadcasting signal into baseband data (see column 7, lines 30-44 and column 18, lines 35—67).
- A decoding means for decoding the baseband data to generate decoded data including multimedia data and DGPS data (see column 16, lines 34-67).
- A DGPS information extractor means for extracting the DGPS information from the decoded DGPS data which is one of the decoded data (see column 20, lines 20-67).
- A RTCM104 formatting means for converting the DGPS information into RTCM104 data which is compatible with the DGPS RTCM data input port and outputting the RTCM104 data through the DGPS RTCM data output port (see column 23, lines 62 thru column 24, lines 1-67).

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- A GPS receiving means for receiving the RTCM104 data through the DGPS RTCM data input port and computing position of a user (see column 24, lines 1-67 and column 49, lines 40-67).

Tiwari discloses:

- FM broadcasting processing for receiving signals including encoded multimedia data and DGPS data and converting signals into baseband data (see column 6, lines 37-43).
- A DGPS information extractor means for extracting the DGPS information from the decoded DGPS data which is one of the decoded data (see column 6, lines 41-42).
- A RTCM104 formatting means for converting the DGPS information into RTCM104 data which is compatible with the DGPS RTCM data input port and outputting the RTCM104 data through the DGPS RTCM data output port (see column 3, lines 9-23).
- A GPS receiving means for receiving the RTCM104 data through the DGPS RTCM data input port and computing position of a user based on the RTCM104 data (see column 6-7, lines 40-13).

It would have been obvious to modify Rudow by incorporating the teaching of Tiwari's system to compute position of a user based on the RTCM104 data so as to improve performing position information.

With regard to claim 2, Tiwari teaches that the DGPS data output port is a port for outputting RTCM104 data (See column 7, lines 20-33).

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With regard to claim 4, Tiwari teaches the receiver providing geographic information based on the positioning information received from the GPS receiving (see column 4, lines 35-49).

With regard to claim 5, Tiwari teaches that the GPS receiving means independently provides the GPS service (see column 4, lines 35-57).

With regard to claim 6, Rudow teaches that the RTCM104 formatting means and the GPS receiving are coupled to each other through one of USB (see column 8-9, lines 63-12).

Response to Amendment

2. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NGA X. NGUYEN whose telephone number is 571-272-5217. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TARCZA H. THOMAS can be reached on (571) 272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NGA X NGUYEN
Examiner
Art Unit 3662

NXN

/Thomas H. Tarcza/

Supervisory Patent Examiner, Art Unit 3662